

WHAT IS CLAIMED IS:

1 1. A method for transferring files among devices in a network, comprising
2 the steps of:
3 requesting a transfer of a file from a source device;
4 scheduling the transfer of the file to be completed by a deadline; and
5 transferring the file from the source device to a destination device, where
6 the file transfer is complete by the deadline.

1 2. The method of claim 1, wherein the step of scheduling includes
2 determining available bandwidth at the source device and the destination
3 device.

1 3. The method of claim 1, wherein the step of scheduling includes
2 determining available storage at the destination device.

1 4. The method of claim 1, wherein a user at the destination device specifies
2 the deadline.

1 5. The method of claim 1, further comprising the step of identifying the file
2 to be transferred from the source device.

1 6. The method of claim 5, wherein a user at the destination device identifies
2 the file to be transferred from the source device.

1 7. The method of claim 5, wherein a pre-fetch module at the destination
2 device identifies the file to be transferred from the source device.

1 8. The method of claim 7, wherein the pre-fetch module is configured to
2 identify files to be transferred based on observations of user behavior.

1 9. The method of claim 7, wherein the pre-fetch module is configured to
2 identify files to be transferred according to predetermined user preferences.

1 10. The method of claim 1, wherein a device other than the destination
2 device requests the file transfer from the source device.

1 11. A system for transferring files among devices in a network, comprising:
2 a destination device configured to send a request for transfer of a file;
3 a source device configured to transfer the file to the destination device;
4 and
5 a scheduling module configured to schedule the transfer of the file from
6 the source device in response to the request.

1 12. The system of claim 11, wherein the scheduling module schedules the
2 transfer to be complete by a deadline.

1 13. The system of claim 12, wherein a user at the destination device specifies
2 the deadline.

1 14. The system of claim 13, wherein a user at the destination device
2 identifies the file to be transferred from the source device.

1 15. The system of claim 11, wherein the destination device includes a pre-
2 fetch module configured to identify the file to be transferred from the source
3 device.

1 16. The system of claim 15, wherein the pre-fetch module is configured to
2 identify files to be transferred based on observations of user behavior.

1 17. The system of claim 15, wherein the pre-fetch module is configured to
2 identify files to be transferred according to predetermined user preferences.

1 18. The system of claim 11, wherein the scheduling module schedules the
2 transfer of the file based on available bandwidth at the source device and the
3 destination device.

1 19. The system of claim 11, wherein the scheduling module schedules the
2 transfer of the file based on available storage at the destination device.

1 20. The system of claim 11, wherein the scheduling module schedules the
2 transfer of the file based on available bandwidth in the network.

1 21. The system of claim 11, wherein the scheduling module resides at the
2 source device.

1 22. The system of claim 11, wherein the scheduling module resides at the
2 destination device.

1 23. The system of claim 11, wherein the scheduling module resides in both
2 the destination device and the source device.

1 24. The system of claim 11, wherein the scheduling module resides in a
2 cache device in the network.

1 25. The system of claim 11, wherein the scheduling module resides in the
2 destination device, the source device, and a cache device in the network.

1 27. The method of claim 26, wherein the source device identifies the file to be
2 transferred.

1 28. The method of claim 27, wherein the source device identifies the file
2 according to a user subscription.

1 29. The method of claim 27, wherein the source device identifies the file
2 according to observations of user behavior transferred from the destination
3 device.

1 30. The method of claim 26, further comprising the step of completing
2 transfer of the file to the destination device by a deadline.

1 31. The method of claim 27, wherein a device in the network that is not the
2 source device or the destination device identifies the file to be transferred.

1 32. The method of claim 31, wherein a user at the device in the network
2 identifies the file to be transferred from the source device to the destination
3 device.

1 33. The method of claim 31, wherein a user at the device in the network
2 determines a deadline for completion of the transfer of the file.

1 34. The method of claim 26, wherein the step of scheduling includes
2 determining available bandwidth at the source device and the destination
3 device.

1 35. The method of claim 26, wherein the step of scheduling includes
2 determining available bandwidth in the network.

1 36. The method of claim 26, wherein the source device is a server.

1 37. The method of claim 26, wherein the source device is a cache device in
2 the network.

1 38. A system for delivering content in a network, comprising:
2 a client configured to send a request for delivery of the content;
3 a scheduling module configured to determine a schedule for delivery of
4 the content; and
5 a server configured to deliver the content to the client according to the
6 schedule.

1 39. The system of claim 38, wherein the content is delivered to the client
2 without a user being present at the client during delivery.

1 40. The system of claim 38, wherein the scheduling module resides at the
2 server.

1 41. The system of claim 38, wherein the scheduling module resides at the
2 client.

1 42. The system of claim 38, wherein the scheduling module resides in a
2 control server in the network.

1 43. The system of claim 42, wherein the control server monitors bandwidth
2 and storage resources in the network and provides bandwidth and storage
3 resources data to the scheduling module.

1 44. The system of claim 38, wherein the server attaches digital rights
2 management rules to the content prior to delivery.

1 45. The system of claim 38, wherein the client includes a digital rights
2 management module configured to implement digital rights management rules
3 attached to the content.

1 46. The system of claim 38, wherein the client is a general-purpose
2 computer.

1 47. The system of claim 38, wherein the client is a set-top box.

1 48. The system of claim 38, wherein the request for delivery includes a
2 deadline for delivery, the scheduling module determines a schedule for delivery
3 to meet the deadline, and the server completes delivery of the content to the
4 client by the deadline.

1 49. The system of claim 38, wherein the client includes a pre-fetch module
2 configured to pre-fetch content from the server.

1 50. The system of claim 49, wherein the pre-fetched content is stored in a
2 cache at the client.

1 51. The system of claim 50, wherein the client includes a mini web server
2 that is configured to receive a request for content from a browser, determine
3 that the requested content resides in the cache as pre-fetched content, and
4 send the requested content from the cache to the browser instead of requesting
5 the content from the server.

1 52. The system of claim 50, wherein specifically requested content is stored
2 in the cache at the client.

1 53. The system of claim 52, wherein the client includes a cache management
2 module configured to determine the size of the cache.

1 54. The system of claim 52, wherein the client includes a cache management
2 module configured to organize the content in the cache.

1 55. The system of claim 52, wherein the client includes a cache management
2 module configured to implement cache replacement algorithms to add or
3 remove content from the cache.

1 56. The system of claim 50, wherein the client includes a cache management
2 module configured to monitor usage of the pre-fetched content in the cache.

1 57. A system for transferring files among devices in a network, comprising:
2 means for requesting a transfer of a file from a source device;
3 means for scheduling the transfer of the file to be completed by a
4 deadline; and
5 means for transferring the file from the source device to a destination
6 device, whereby the file transfer is complete by the deadline.

1 58. A system for transferring files among devices in a network, comprising:
2 a plurality of servers configured to deliver content to the devices in the
3 network;
4 a plurality of clients configured to receive content from the plurality of
5 servers; and
6 a scheduling module configured to determine schedules for delivery of
7 content from the plurality of servers to the plurality of clients, the
8 schedules being based on available bandwidth at the plurality of
9 servers, available bandwidth at the plurality of clients, and
10 available bandwidth in the network.